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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/042,681	03/12/1998	AKIKO ISHIDA	MAT-5870	5427
7590	05/20/2004		EXAMINER	
LAWRENCE E ASHERY RATNER & PRESTIA ONE WESTLAKES BERWYN P O BOX 980 SUITE 301 VALLEY FORGE, PA 19482			CREPEAU, JONATHAN	
		ART UNIT	PAPER NUMBER	
		1746		
DATE MAILED: 05/20/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/042,681	ISHIDA ET AL. <i>[Signature]</i>
	Examiner Jonathan S. Crepeau	Art Unit 1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 March 2004.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 22,25,33 and 36-38 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 22,25,33 and 36-38 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                             |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                        | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action addresses claims 22, 25, 33, and 36-38. The claims remain rejected under 35 USC §102 for the reasons of record. Accordingly, this action is made final.

### ***Claim Rejections - 35 USC § 102***

2. Claims 22, 25, 33, and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 8-298121. Regarding claim 22, the reference is directed to a nonaqueous lithium-ion secondary battery (see abstract). Regarding claims 22 and 25, the positive electrode may comprise a lithium transition metal oxide such as LiCoO<sub>2</sub> (see paragraph 24 of the machine translation). Regarding claims 22 and 37, the negative electrode contains a material that is negative during discharging of the battery, such as graphite (see paragraph 11). Regarding claim 22, the battery comprises a microporous polymer film separator (see paragraph 39). Regarding claims 22, 37, and 38, the electrolyte comprises a solvent which may comprise ethylene carbonate and ethyl methyl carbonate and a solute which may comprise lithium hexafluorophosphate (see paragraph 34). Regarding claim 22, the negative electrode may comprise electrically conductive carbon and ceramic particles which do not contribute to the electrode reactions (see abstract). The ceramic may comprise Al<sub>2</sub>O<sub>3</sub> (see paragraph 8). The ceramic/carbon composite is added to the electrode in an amount of 1-30 wt%, and the ceramic particles comprise 5-50% of the composite (see paragraphs 9 and 10). This disclosure is

considered to be anticipatory of Applicant's claimed ranges of 5-20 (5-10) parts by weight of ceramic particles in 100 parts by weight of active substance. Further, the particle size of the ceramic particles is in the range of 0.1-10 microns (see paragraph 9). This is also anticipatory of Applicant's range of 1 micron or less.

Thus, the instant claims are anticipated.

***Response to Arguments***

3. Applicant's arguments filed March 4, 2004 have been fully considered but they are not persuasive. Regarding the JP '121 reference, Applicant asserts that "JP '121 discloses addition of conductive, carbon/ceramic composite particles, which may comprise aluminum oxide. Applicants' claims recite aluminum oxide particles, rather than carbon/ceramic composite particles. Carbon/ceramic composite particles that comprise aluminum oxide are not the same as aluminum oxide particles." While the Examiner concurs that JP '121 teaches the addition of carbon/ceramic conductive particles, this is still believed to be sufficient to meet Applicants' claims because the claims do not expressly exclude components other than aluminum oxide from being present in the particles. The exact claim language states that "the negative electrode comprises ceramic particles not relating to the charge and discharge reactions of the battery; [...] the ceramic particles are Al<sub>2</sub>O<sub>3</sub> particles." This claim language is open-ended in terms of the negative electrode composition ("the negative electrode *comprises* ceramic particles...") and also in terms of the composition of the ceramic particles ("the ceramic particles *are* Al<sub>2</sub>O<sub>3</sub> particles").

As such, the claim language is not seen to exclude the carbon present in the '121 reference, and accordingly, the rejection under 35 USC §102 is maintained.

***Conclusion***

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

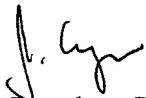
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached at (571) 272-1302. The phone number for the

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organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau  
Patent Examiner  
Art Unit 1746  
May 18, 2004